

in PLG copolymer dissolved in acetonitrile. This antigen-polymer mixture is then emulsified into heavy mineral oil, transferred into heptane and mixed for 30 min to extract the oil and acetonitrile from the nascent spheres. The spheres are harvested by centrifugation, washed three times in heptane and dried overnight under vacuum. Microsphere size was determined by both light and scanning electron microscopy. The antigen core load was determined by quantitative amino acid analysis of the microspheres following complete hydrolysis in 6N hydrochloric acid.

Replace the paragraph beginning at column 5, line 1 with the following:

antigen to denatured gp 120 [(FIGS. 2, 3, and 4)] (FIG. 2, nos. 3 and 4) and the preferred binding of antibodies elicited by microspheres loaded with native (oligomeric) antigen to native gp 120 [(FIGS. 2, 7-8)] (FIG 2, nos. 7 and 8).

IN THE CLAIMS:

Amend claim 7 as follows:

Claim 7. (Amended) A vaccine [consisting of] comprising a blend of the immunostimulating compositions of claim 5 [described in claims 5 or 6].

Amend claim 8 as follows:

Claim 8. (Amended) The immunostimulating composition described in claim 5, employed as a [parentally] parenterally administered vaccine wherein the diameter size range of said vaccine microspheres lies between 1 nanometer and 20 microns.

Amend claim 11 as follows:

Claim 11. (Amended) A vaccine [consisting of] comprising a blend of the immunostimulating compositions of claim 6 [described in claims 5 or 6].

Amend claim 12 as follows:

Claim 12. (Amended) The immunostimulating composition described in claim 6, employed as a [parentally] parenterally administered vaccine wherein the diameter size range of said vaccine microspheres lies between 1 nanometer and 20 microns.

Amend claim 13 as follows:

Claim 12. (Amended) The immunostimulating composition described in claim 7, employed as a [parentally] parenterally administered vaccine wherein the diameter size range of said vaccine microspheres lies between 1 nanometer and 20 microns.

Please add claims 15-33 as follows:

Claim 15. An immunostimulating composition comprising encapsulating microspheres, wherein said encapsulating microspheres comprise:

a biodegradable-biocompatible poly(DL-lactide-co-glycolide) as a bulk matrix
and

an immunogenic substance comprising a conformationally native subunit of chronic intracellular pathogen which, in the course of natural infection with that pathogen, is exposed to the host immune system on the surface of free pathogen and/or pathogen-infected cells.

Claim 16. The immunostimulating composition of claim 15, wherein the encapsulating microspheres are produced by a solvent extraction process.

Claim 17. The immunostimulating composition of claim 15, wherein the encapsulating microspheres are produced by a solvent evaporation process.

Claim 18. The immunostimulating composition of claim 15, wherein the antigen is pre-encapsulated into a conformationally stabilizing hydrophilic matrix comprising an appropriate mono, di- or tri-saccharide or other carbohydrate substance by lyophilization prior to its final encapsulation into the PLG microsphere.

Claim 19. The immunostimulating composition of claim 18, wherein the encapsulating microspheres are produced by a solvent extraction process.

Claim 20. The immunostimulating composition of claim 19, wherein said solvent extraction process employs acetonitrile as the polymer solvent, mineral oil as the emulsion's external phase, and heptane as the extractant.

Claim 21. The immunostimulating composition of claim 15, wherein said microspheres further comprise a pharmaceutically acceptable adjuvant.

Claim 22. The immunostimulating composition of claim 15, wherein a molecular weight of the poly(DL-lactide-co-glycolide) is 4,000 to 100,000 daltons.

Claim 23. The immunostimulating composition of claim 15, wherein the relative ratio between the amount of the lactide:glycolide components of the matrix is within the range of 52:48 to 0:100.

Claim 24. The immunostimulating composition of claim 15, wherein the immunogenic substance is a native (oligomeric)HIV-1 envelope antigen.

Claim 25. The immunostimulating composition of claim 15, wherein the amount of said immunogenic substance with in the microsphere comprises between 0.5% to 5.0% of the weight of said composition.

Claim 26. The immunostimulating composition of claim 15, wherein the diameter size range of the microspheres is between 0.1 - 20 μ m.